SOUTHERN CALIFORNIA
EDISON
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Senior Vice President
Chief Information Officer

April 8, 2011

Federal Communications Commission
Washington, D.C. 20554

RE: COMMENTS IN THE MATTER OF IMPLEMENTING A NATIONWIDE, BROADBAND, INTEROPERABLE PUBLIC SAFETY NETWORK IN THE 700 MHz BAND (PS Docket No. 06-229)

Dear Sir or Madam:

Southern California Edison (SCE) appreciates the opportunity to submit comments on "Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band," which was released on January 26, 2011.

SCE is gratified to learn that many in the public safety community have a strong desire to work with Utilities on common activities and to enable a coordinated joint response to emergencies. SCE agrees that its critical infrastructure is a key component supporting the public safety community's mission.

For the various reasons outlined in the attached comments, SCE believes that access to the public safety network as a secondary user would benefit neither public safety nor Utilities. The more reasonable alternative involves the establishment of a spectrum dedicated for Utility use.

SCE successfully built and operates its own private network for its mission critical applications while fully leveraging Carrier services where applicable. SCE would look forward to partnering with the FCC and sharing our operational and technical expertise in establishing and operating a dedicated spectrum for Utilities.

Thank you, once again, for the opportunity to submit our comments. We look forward to continuing to partner with the FCC as additional opportunities arise.

Sincerely,

Mahvash Yazdi

Attachments

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Southern California Edison is pleased to submit its comments on "Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band," which was released on January 26, 2011.

SCE has limited its comments to two areas of the document: the discussion regarding access to the public safety spectrum, and areas where SCE has had experience that are directly transferrable to a broadband network.

(1) Utility Access to the Public Safety Spectrum

SCE is gratified to learn that many in the public safety community have a strong desire to work with Utilities on common activities and to enable a coordinated joint response to emergencies. SCE agrees that its critical infrastructure is a key component supporting the public safety community's mission.

Ultimately, SCE concludes that access to the public safety broadband spectrum as a secondary user would not benefit Utilities, such as SCE, due to availability and coverage issues:

Availability Issue:
Secondary use of radio spectrum would present a problem in emergency situations because Utilities do not have direct control over the availability of radio spectrum, and would likely be preempted and/or experience limited connectivity. Under current legislation, priority is given to 15 organizations, representing a variety of police, fire, hospital, and governmental entities.

Additionally, no current criteria exist to determine prioritization of traffic among first responders or between primary and secondary access users. A prioritization process will be needed for first responder traffic and between secondary access users, and it is not clear how the criteria will be established or by whom.

Thus, with a high likelihood of preemption, Utilities may be able to utilize the public safety spectrum for non-critical applications, but not for applications that would be essential for emergency response. This situation could make the public safety network equivalent to what SCE expects from commercial carriers during emergencies.

Coverage Issue:
Coverage is an essential consideration when examining whether or not, or how, Utilities could share the public safety spectrum. Utilities operate in wide geographic areas, and a large percentage of this territory is remote and far from population centers. With a current public safety spectrum that is more population-based than geographic-based, considerable gaps in coverage are left in remote/outlying regions.

From the Utilities' perspective, an effective public safety spectrum should provide, at a minimum, 95 percent coverage of a Utility's facilities (substations, control centers, headquarters, generating stations, major offices, key transmission and distribution routes), including critical infrastructure sites. Coverage under a shared model would likely fall far short of this.

Further complicating the issue is that SCE expects to leverage its wireless broadband network across the company to support wireless needs ranging from meter reading to video surveillance, activities far outside the "sole or principal purpose . . ." provisions.

Utilities Need a Dedicated Spectrum
Given the problematic scenario of a shared public safety spectrum, the most reasonable alternative involves providing Utilities with a dedicated spectrum. In addition to benefiting public safety, a dedicated spectrum would support key requirements specific to Utilities. These requirements include stringent latency specifications of two to eight milliseconds, which plays a vital role in maintaining the stability and reliability of an inter-connected electric grid; and emergency availability and coverage issues as outlined above.

(2) Areas where SCE has had experience that are directly transferrable to this public safety network in the 700 MHz band.

Back-up Generation – The amount of back-up power at a site should be eight hours at a minimum, and in high fire areas or areas prone to natural disasters, engine generator back-up should be provided. In areas where fires or ice storms may happen, SCE installs back-up generators in anticipation that the power line to a site may not be repaired for weeks until access is again possible or while field crews are dispatched for more critical repairs.

Network Deployment – SCE successfully built and operates its own private network, one of the largest and most advanced networks in the world. SCE would look forward to partnering with the FCC and sharing our operational and technical expertise in establishing and operating a dedicated spectrum for Utilities.

The selection of LTE as a technology choice may prove costly for those with large geographic service areas. The complex relationship between the number of subscribers, the spectrum and number of channels, power levels, and terrain will all impact bandwidth and installation costs. A further complication is the intense competition for preferred cell locations in urban areas. Determination of coverage criteria goes beyond simply a population or geography-based build-out if the economic viability of a network will be maintained.

"Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band," directs technical specifications that appear to extend beyond policy-making and the scope of the FCC's mission. SCE's position is that technology decisions (such as the use of IPv4 vs. IPv6, IPX as the Nationwide Backbone Network routing protocol, and the establishment of clearinghouses to provide centralized network based services such as authentication), be made by local entities, in line with their upgrade schedule, optimization schemes, and business model, and that these entities are better positioned to do so. Technical requirements imposed by the FCC would also be difficult to enforce.

The work of the FCC on development of the P25 Open Standards for Land Mobile Radio is an excellent template from which to work with users, vendors, and stakeholders. This would minimize

the opportunities for technology dead ends that can happen when technology decisions are made without the benefit of an interactive development process.

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